Linkers Are Not "Possession Markers" (but "Agreements")

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Abstract: The empirical focus of this work is linkers in Albanian, Aromanian, and Iranian (Persian and Kurdish ezafes). We argue that linkers (at least in the languages considered) are neither copulas nor case assigners, but they are closer to what is usually called agreement. Specifically, the parallel is with the clitic pronouns/determiners of the Romance languages, which are also known to enter agreement (aka doubling) structures. We argue that so-called agreement morphology is interpretable as a partial saturation of argument slots. A cross-linguistic survey of determiners, linkers, and pronominal clitics based on this view is provided; we briefly extend our discussion to pregenitival linkers, treating genitive case as a lexicalization of the part-whole relation, of which the linker saturates the external argument (the *possessum*).

Keywords: linkers; agreement; case; Albanian; Iranian.

1. Introduction

In many languages a linker element is inserted between a noun N and an adjective or a complement of N (or a relative clause, not considered here because of its internal complexity). The linker often agrees with the head noun, as shown in (1) and (2) for Kurmanji Kurdish (Bahdînî dialect).

(1) (a) kurk-(ak-)e: mazən   jet   het   *Kurmanji*
          boy-(one)-LNK.M   big   m.sg   come.3SG
          "A/The big boy is coming."

     (b) ketʃk-(ak-)**ɑ:**   mazən   jɑt   het
          girl-(one)-LNK.F   big   f.sg   come.3SG
          "A/The big girl is coming."

(c) kurk-e:t/ketʃk-**e:t**   mazən   jet   hen
     boy-LNK.PL/girl-LNK.PL   big   pl   come.3SG
     "The big boys/girls are coming."

(2) dest-**e**   kurk-i/ ketʃk-e
     hand-LNK.M   boy-OBL.M/girl-OBL.F
     "The hand of the boy/girl."

There is still no general consensus in the literature regarding the nature (and inventories) of linkers. For instance den Dikken and Singhapreecha (2004, n31) explicitly exclude Greek polydefiniteness from their notion of linkers, while Androutsopoulou and Español-Echevarría (2007) start from Greek in their survey, and Larson and Yamakido (2008) also include Greek in theirs. As in Greek, in Albanian,[1] pre-adjectival and pre-genitival articles are related to definite inflection (aka post-nominal articles) with which they agree and also often coincide, as shown in (3)–(4).

(3) (a) ɛrθ   diaʎ-**i**   **i**   maθ   *Arbëresh-Vena*
       came boy-NOM.M.DEF   the.M big
       "The big boy came."

    (b) ɛrθ   vazd-**a**   **ɛ**   mað-ɛ
       came girl-NOM.F.DEF   the.F big-F
       "The big girl came."

    (c) ɛrðə   kriatura-**tə**   **tə**   mbiðɛɲ-a
       came boy-NOM.PL.DEF   the.PL big-PL
       "The big boys came."

(4) (a) ku'tu   å   biʃt-**i**   **i**   matʃɛ-sə
       here is tail-NOM.M.DEF   the.M cat-OBL.F.DEF
       "Here there is the tail of the cat."

    (b) kjɔ   å   kɐmb-**a**   **ɛ**   matʃɛ-sə
       this is leg-NOM.F.DEF   the.F cat-OBL.F.DEF
       "This is the leg of the cat."

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1   Albanian data are mainly from the Italo-Albanian (Arbëresh) variety of Vena di Maida (Calabria). Data concerning Standard Albanian, taken from Turano (2004), are used for comparison. In the text we will generically speak of Albanian; the source of data will be indicated in the examples.

(c) ɛrðə   kriatura-**tə**   **tə**   mbiðɛɲ-a
    came   boy-NOM.PL.DEF   the.PL big-PL
    "The big boys came."

In this work we will first show that on the basis of morphological, syntactic, and interpretive evidence, Kurdish ezafes and Albanian articles belong to the same class of linkers. Furthermore, currently available formal theories of linkers (as copulas, as case assigners/possessor markers, as means for identity avoidance) face problems when applied to both Albanian and Kurdish.

Our proposal is consistent with Zwart's (2006) and Philip's (2012) claim that the difference between so-called linkers and so-called agreement reduces to their structural position (head vs. inflection). However, for Philip (2012) linkers are "semantically vacuous functional heads"—and she extends linker status to a whole series of functional heads, including at least complementizers, prepositions like *of* or *to*, and coordinations as well as linkers proper. Here, on the contrary, we take the view that both lexical and functional elements, including morphemes, externalize (Berwick and Chomsky 2011) interpretive content and that they both concur to project interpreted (meaningful) syntactic relations.

2. What Linkers Are Not

In this section we provide arguments as to why currently available formal theories of linkers—as copulas, as case assigners, as means for identity avoidance—face problems when applied to Albanian or Kurdish.

The obvious counterargument to treating the linker as a copula is that in Albanian (5) the copula is independently lexicalized in front of the sequence article—predicative adjective. Similarly in Bahdînî Kurmanji the linker *je(t)/ja:* precedes the sequence adjective—enclitic copula, as in (6).

(5) (a) ɐʃt   *(**i**)   maθə/ *(**ɛ**)   mað-ɛ *Arbëresh-Vena*
          s/he.is   the.M   big/   the.F big-F
          "S/he is big."

    (b) jan   *(**tə**)   traʃ-a
          they.are the.PL   fat-PL
          "They are fat."

(6) (a) av   kamis-a   **jet**   ʃiʃti-na   *Kurmanji*
          dem.PL shirt-PL   EZ.PL   washed-are
          "These shirts are washed."

(b) au **je/jɑ** mazən-e
3sg EZ.M/EZ.F big-is
"S/he is big."

(c) au **jet** sur-ən
3pl EZ.PL red-are
"They are red."

For Larson and Yamakido (2008; cf. Samiian [1994] on Persian) linkers are necessary to case licence +N complements of N heads, including adjectives. Yet in Albanian (7a) the article replicates exactly the oblique inflection of the head noun. Why would the article solve any problem with +N embedding that the nominal inflection could not itself solve? Another line of work takes linkers to semantically license the possession relation (Koontz-Garboden and Francez [2010] on Ulwa). Here the problem posed by Albanian is another. The second internal argument of ditransitives has been connected to possessives at least since Kayne (1984). For instance the English sentence *He gave a fright/a book to everybody* corresponds to the attribution of a mental state or a material possession to the dative argument. In (7b) the oblique case morphology of Albanian is perfectly sufficient to support the possession relation in a dative context—why would it not do exactly that in a genitive context?

(7) (a) vajz-**ës** **së** bukur *Standard Albanian*
girl-OBL.F.DEF the nice
"To the nice girl."

(b) ja dhe vajz-ës
it-to.him/her I.gave girl-OBL.F.DEF
"I gave it to him/her."

Similarly, in several West Iranian languages, including Kurmanji, a direct vs. oblique case distinction is morphologically available, and the possessor is marked oblique both in a genitive and in a dative context, as in (8); still the ezafe is present in front of the genitive.

(8) (a) dest-**e** kurk-i/ ketʃk-e *Kurmanji*
hand-EZ.M boy-OBL.M/girl-OBL.F
"the hand of the boy/girl"

(b) de qalam-ak-i dama ketʃk-e/kurk-i
PROGR pen-one-OBL give.1SG girl-OBL.F/boy-OBL.M
"I give a pen to the girl/boy."

A final family of accounts for linkers takes them to be means for identity avoidance (Ghomeshi [1997] on Persian; Richards 2010). However, in Albanian, there is a subclass of nouns—kinship terms—that are accompanied by preposed articles, in addition to their normal definiteness inflections (postposed articles). When kinship terms are embedded as genitives, structures of the type in (9) are created, where the inflected kinship term is preceded by its own agreeing article, which is preceded in turn by the pre-genitival article agreeing with the head noun. The existence of syncretisms in the nominal inflection/article paradigms leads to sequences of not only syntactically, but also morpho-phonologically identical elements. In other words far from avoiding local identity, the linkers system seems to create it.

(9) mɔra   kuputsə-tə   **tə**   **tə**   nipi-tə   *Arbëresh-Vena*
     I.took   shoes-ACC.PL.DEF   the-ACC.PL   the-OBL   grandchild-OBL.M.DEF
     "I took the shoes of the/his/her/their grandchild."

3. A Characterization of Linkers

Albanian linkers can either be sensitive to phi-features, as in (10), or to a more complex set of features including definiteness and case, as in (11)–(12).

(10) Pre-adjectival article in *Vena*

SG.M	i
SG.F	ɛ
PL	tə

(11) Article with definite head noun in *Albanian*
     Pre-genitival article with definite head noun in *Vena*

	SG.M	SG.F	PL
NOM	i	ɛ	ɛ/tə (V)
ACC	ɛ	ɛ	ɛ/tə (V)
OBL	tə	sə/tə (V)	tə

(12) Article with indefinite head noun in *Albanian*
     Pre-genitival article with indefinite head noun in *Vena*

	SG.M	SG.F	PL
NOM	i/tə (V)	ɛ/tə (V)	tə
ACC	tə	tə	tə
OBL	tə	tə	tə

The variation internal to Iranian languages follows the same parameters as the variation between Albanian dialects in (10)–(12). Thus in Kurmanji (3)–(4), the linker has three

realizations namely *e* for the masculine, *a* for the feminine and *et* for the plural, as in *Vena*'s (10). However, in Hawrami Kurdish (Holmberg and Odden 2008), the adjectival ezafe has different realizations, *-i*, *-æ*, *-e*, depending on the number and definiteness of the head noun, recalling Albanian (11)–(12). At the same time, Hawrami Kurdish distinguishes the adjectival ezafe from the genitival one, since the latter takes the invariable *-u* form; this is reminiscent of the split found in *Vena* between the pre-adjectival paradigm in (10) and the pre-genitival one in (11)–(12). Comparison between Albanian and Iranian varieties confirms then that the article and the ezafe have essentially the same morphological make-up, down to fine parametrization.

When it comes to constituency, the Albanian article that appears in front of the adjective or the genitive DP and after the copula in (5) must be part of the structure of the AP/DP, as in (13). For the time being, we make no commitment to the category label of the "article."

(13) [ε   [_A maδ-ε]]

The Persian and Kurdish ezafe, despite conventional orthography, also forms a constituent with the following adjective or genitive DP. One argument in favor of these structures is that in sequences of more than one modifier, modifiers internal to the sequence are associated with an ezafe enclitic, which is absent from the last modifier. If the ezafe forms a constituent with the following modifier, as indicated by our brackets in (14), the last modifier of the sequence is correctly predicted to be ezafe-free (Yamakido 2005, 121).

(14) (a) kitêb-ek-[e   bas-[e   nû]]   *Kurmanji*
           book-INDEF-EZ   good-EZ   new
           "a good new book"

      (b) xani-yek-[î   bas-[î   nû]]
           house-INDEF-EZ   good-EZ   new
           "a good new house"

In recent work, Philip (2012, 37ff.) shows that in Persian, when the head noun is a coordination, there can only be one ezafe, next to the modifier. In other words, the ezafe is an integral part of the modifier; otherwise we might expect to find a copy of the ezafe after each conjunct. Hence, in Iranian adjectival modifiers have exactly the same structure as in Albanian, as in (16).[2] The categorial signature of the "ezafe" is once again left open.

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2   Thus we claim that the only difference between Albanian and Kurdish is that Albanian articles are prosodically proclitic, while Kurdish ezafes are prosodically enclitic. The same holds for pre-genitival linkers, as in Albanian (39) vs. Kurdish (40). In other words, Kurdish A/N-*e* end up as "one . . . item" (in the words of an anonymous reviewer), only if by the latter we mean

(15) [kolâh(*-e) va lebâs][-e Maryam]   *Persian* (Philip 2012)
hat-EZ   and dress-EZ Maryam
"Maryam's hat and dress."

(16) [kurkak] [e: [_A mazən]]

It remains for us to provide a categorial label for the linker. In Standard Albanian (7), we saw that the (non-syncretic) feminine singular oblique *së* occurs both as the pre-AP/ DP article and as a nominal inflection. Crucially, as a nominal inflection, *së* is always interpreted as definite, cf. (17). The same is true of the other syllabic article of Albanian, *të*, which only occurs as a definite inflection/post-nominal article.

(17)		"the good boy"	(b)	"the good girl"	*Albanian*
NOM		*djal-i i mirë*		*vajz-a e mirë*	
ACC		*djali-n e mirë*		*vajz-a e mirë*	
OBL		*djali-**t të** mirë*		*vajzë-**s së** mirë*	
	(c)	"a good boy"	(d)	"a good girl"	
NOM		*një djalë i mirë*		*një vajzë e mirë*	
ACC		*një djalë **të** mirë*		*një vajzë **të** mirë*	
OBL		*një djal-i **të** mirë*		*një vajzë **të** mirë*	

The pre-adjectival/pre-genitival article set also overlaps with the pronominal object clitic set which includes *i* (oblique singular "to him/her" and accusative plural "them") and *e/ɛ* (accusative singular "him/her"), as in (18).

(18) **ɛ** pɛ (vazdə-nə **ɛ** vɔgiʎə) *Arbëresh–Vena*
her I.saw girl-ACC the small
"I saw her (the small girl)."

The Persian ezafe is often characterized in the literature as semantically vacuous. Despite this, the so-called ezafe in Kurmanji Kurdish can occur independently of a head noun in a demonstrative/anaphoric "function," compatible with a D categorization, as in (19).

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a prosodic word; the same holds of Albanian Art-A/N. Since prosody (and its relation to syntax and the lexicon) is outside the scope of the present work, the relevant differences are taken to hold by stipulation.

(19) (a) **yê** Soro/min/te   *Kurmanji* (Haig 2011, 367)
        EZ.M   Soro/me/you
        "The one of Soros/of mine/of yours."

     (b) **yē**   dwē . . .   **yē**   sēye
         EZ.M   second . . .   EZ.M   third
         "the second one . . . the third one"

Aromanian[3] pre-adjectival linkers are excluded in contexts with an indefinite noun, making them more similar to Greek polydefiniteness. What we are interested in is that in Aromanian the linker takes the full form of the demonstrative, as in (20).

(20)   ar vənit/ am vəzut   *Aromanian*
        has come/I.have seen

     (a) fitʃor-u   (a)tse-**u**   mar-**u**
        the boy   that-M   big-M

     (b) fɛt-a   ats-**ɛ**   mar-**ɛ**
        the girl   that-F   big-F

     (c) un fitʃor mari/ un fɛtə mari
        a boy big/a girl big
        "There has come/I have seen the big boy/the big girl/a big boy/a big girl."

Given the above data, we assign the D category to the linker head as in (21)–(22). In the same way, we assign the D category to the object clitic ε in (18), as well as to the definite inflections *të*, *së* in (17).

(21) $[_D \varepsilon \quad [_A \text{mað-}\varepsilon]]$

(22) $[\text{kurkak}] [_D \text{e:} \quad [_A \text{mazən}]]$

4. Linkers and Agreement

In German the adjective occurs in a bare (uninflected) form in predicative contexts. When a complex nominal is formed, whereby "man" is modified by "young," the pre-

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3   Aromanian data have been obtained through field investigations in South Albania, where Aromanian communities are present (cf. Manzini and Savoia 2013).

nominal adjective is obligatorily inflected, as in (23). This is called agreement, and is furthermore sensitive to the (in)definiteness properties of the head noun. The Iranian ezafe/Albanian article and adjectival agreement in German form a natural class in more than one respect (DP-internal only, as in standard Persian, definiteness sensitive, as in Albanian or Hawrami Kurdish).

(23) (a) der   Mann   ist   jung   *German*
         the   man   is   young

     (b) der   jung-**e**   Mann
         the   young-AGR   man

     (c) ein   jung-**er**   Mann
         a   young-AGR   man

In Albanian, Iranian, and Aromanian, linkers are Ds, on the evidence of their also occurring as determiners/demonstratives or as stand-alone pronominal clitics. In fact, definite reference and so-called agreement are carried out by the same lexical items across many languages and structures. For instance, many Romance languages also have clitics with dedicated *l-* morphology, which occur as referring pronouns and determiners, but also as agreement elements, for instance in Italian clitic left dislocation in (24).
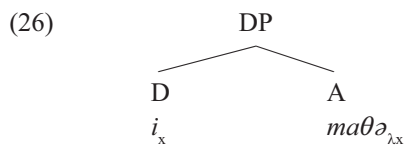
(24) **La**   ragazza   bionda   **la**   vedo   *Italian*
     the   girl   blonde   her   I.see
     "The blonde girl, I see (her)."

All of this raises the question as to the relation between linkers and agreement—and of the relation between both and pronouns/determiners. Philip (2012) unifies linkers with agreement inflection on predicates, treating both as uninterpretable. However, this forces her to diverge from a standard tenet of minimalism, namely that heads are always interpretable (unlike inflection), since their deletion at LF under Full Interpretation would amount to the destruction of structure (contravening Inclusiveness, cf. Chomsky 1995).

We propose that linkers and agreement have largely identical properties including interpretive ones. We assume that non-eventive nouns are predicates and have an argumental slot (called the R-role) as standard in the literature (Higginbotham 1985; Williams 1994). The saturation of the R-role in English requires a Determiner, as schematically indicated in (25).

(25)

$$\begin{array}{c} \text{DP} \\[2pt] \diagup\ \diagdown \\ \text{D} \qquad \text{N} \\ \textit{the}_x \qquad \textit{boy}_{\lambda x} \end{array}$$
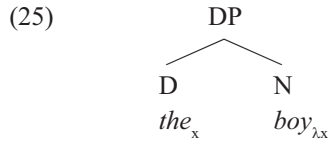
If we mechanically apply the analysis of the English D in (25) to the Albanian linker D, we obtain a structure of the type in (26).

(26)

$$\begin{array}{c} \text{DP} \\[2pt] \diagup\ \diagdown \\ \text{D} \qquad \text{A} \\ i_x \qquad \textit{ma}\theta\textit{\partial}_{\lambda x} \end{array}$$

This is not to say that the two Ds in (25)–(26) can really be equated (cf. Lekakou and Szendrői 2012). In English, D precedes some quantifiers, as in *the three/many/few children*, and is in complementary distribution with others, as in *the/every/no child*. On the contrary, in Albanian, elements quantifying over the adjective precede D, as in (27).

(27) ɐʃt mə/ʃum   ɛ   maðɛ *Arbëresh–Vena*
      is   more/much the big
      "She is bigger/very big."

Recall that in Albanian, there is a particular subset of nouns, namely kinship terms, which occur with a preposed article, as in (9). The article of kinship terms behaves like the prenominal D of English, since it precedes numerals and it is mutually exclusive with other quantifiers, as in (28). In other words, prenominal and preadjectival D are different in Albanian as well.

(28) (a) tə   katra   kuʃiriç-ətə   *Arbëresh–Vena*
            the   four   cousins
            "his/her/their four cousins"

      (b) ʃum   kuʃiriç
            many   cousins
            "many cousins (of his/her/theirs)"

Where the same lexical bases that we have considered so far to be adjectives are nominalized, the linker D can combine with a higher D, bearing in particular indefiniteness properties, as in (29).

(29) (a) ɛrθ   mə   **i**   mað-i   *Arbëresh–Vena*
         came   more the   big-NOM.M.DEF
         "The bigger one came."

     (b) ɛrɜ   **i**   vɔgəʎ-i/   **ɛ**   vɔgəʎ-a
         came   the   little-NOM.M.DEF/ the   little-NOM.F.DEF
         "The little one came."

     (c) ɛrθ   ɲə   **i**   vɔkiçə /   **ɛ**   vɔgiʎə
         came   a   the   little-M   the   little.F
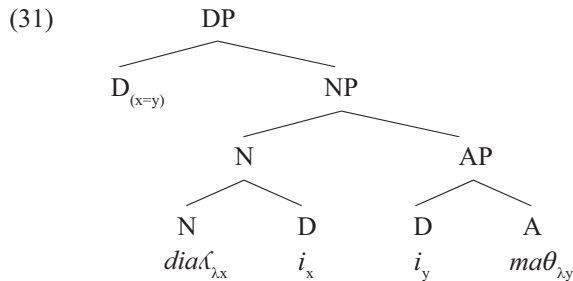   "A little one came."

In (29) the lower D saturates the internal argument of the adjective, according to the schema in (26). However the referential properties of the DP (for instance existential quantification) are determined by the higher D, as in the representation given in (30) for example (29c).

(30)

$$\begin{array}{c} \text{DP} \\ \diagup \quad \diagdown \\ \text{D} \qquad \text{AP} \\ \textit{ɲə}_x \quad \diagup \quad \diagdown \\ \qquad \text{D} \qquad \text{A} \\ \qquad i_x \qquad \textit{vɔkiçə}_{\lambda x} \end{array}$$

The article instantiated in (i.e., projecting) the highest position of the DP is interpreted as indicating that there is an individual (or set of individuals, or unique/familiar/etc. individual, and so on) on which the properties of the NP predicate and those of the sentential predicate overlap—i.e., as a quantifier in generalized quantifier theory. The lower article values the argument slot of A, awaiting further quantificational closure (namely by the higher D). Both of them, besides being associated with nominal class (gender) and number features, have interpretable (in)definiteness properties. However the lower one is interpreted as a bound variable of the higher one, rather like the determiner and the doubling clitic in Romance (24).

Building on the structure of the English DP in (25), Higginbotham (1985) proposes that its adjectival modification involves the identification of the R-role of the noun with the theta-role of any modifying adjective. Applying the same idea, in structure (31) for Albanian example (3a) there is ultimately a single argument, satisfying both the predicate "boy" and the predicate "big"; the referent denoted by the complex DP correspondingly must have both the "big" and the "boy" properties (D x: x boy and x big [for a boy]).

(31)

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                    DP
          ┌──────────┴──────────┐
        D(x=y)                  NP
                       ┌─────────┴─────────┐
                       N                   AP
                  ┌────┴────┐         ┌─────┴─────┐
                  N         D         D           A
                diaʎλx     ix        iy         maθλ.y
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Copular sentences, e.g. (5a), involve not only the AP and the copula, but also binding of the linker D by a higher D(P), namely *pro*, as in (32). In other words, the *pro* binds the pre-adjectival linker, exactly like the determiner D binds the linker D.

(32)   pro   [IP ɐʃt   [AP i maθə]]

4.1 Linkers, Determiners, Clitics: Parameters of Cross-Linguistic Variation

Given the preceding discussion, there are two parameters in terms of which the various descriptive categories of determiner, linker, and pronominal clitic (referential or doubling) can be systematized. One parameter is interpretive and we notate it as *free* (head of referential chain) vs. *bound* (bound variable within a chain). Determiners and referential pronouns (deictic or anaphoric) are free in the relevant sense of the terms. Linkers and doubling pronouns are bound. A second parameter is *inflection* vs. independent *head*.[4] Determiners, linkers and pronouns are heads; but Albanian also has definiteness inflection (free, infl). Since heads and inflection admit of common lexicalizations, and so do referring and bound pronominal material, we expect that the series of descriptive elements listed for Albanian on the right-hand side in (33) overlap lexically, as they indeed do.

(33) *Arbëresh–Vena*
      bound, infl
      free, infl   *definite inflection*
      bound, head   *linker, doubling clitic*
      free, head   *clitic, determiner (definite in kinship terms, indefinite)*

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4   Here we seek to define and motivate the first parameter. As remarked by an anonymous reviewer, the second is equally (or more) in need of definition. Importantly, the present discussion of the free vs. bound distinction goes through independently of whether the head vs. inflection distinction turns out to have a theoretical status or to be purely descriptive. The traditional notion that inflection is morphological and heads are syntactic is not available to us, since we implicitly adopt a unified view of morphology and syntax of the type introduced by Distributed Morphology. Structurally, we nevertheless keep to the assumption that merge of heads yields phrasal (XP) projections; merge of inflection yields non-phrasal (X) projections.

In Kurmanji, the data in our possession are sufficient to establish that the morphological series *je, ja, jet* appears not only as a linker/ezafe (syntactic heads with semantically bound interpretation), but also as a subject clitic of sorts (the preverbal/tense ezafe [cf. Haig 2011]) as well as a determiner (the stand-alone ezafe with demonstrative reading), as in (34).

(34) *Kurmanji*
    bound, infl
    free, infl   *indefinite inflection*
    bound, head   *ezafe/pre-verbal ezafe*
   free, head   *stand-alone ezafe (demonstrative)/pre-verbal ezafe*

4.2 Is "Agreement" Interpretable?

Crossing our parameters in tables (33)–(34), we predict the existence of elements that are inflectional and bound. A natural interpretation of this class of elements is that they correspond to what is ordinarily called agreement, as in the German examples in (23) or the Italian example in (24). This implies that agreement inflection is interpreted, albeit as bound variables of higher, fully referential elements. In turn, this clashes with one of the central tenets of current minimalist theory, namely that agreement on predicate heads is uninterpretable (Chomsky 1995). Yet, quite independently of linker data, there are reasons to be wary of the standard minimalist conception of agreement, at least within DP/AP. D is expected to be a probe in (35), cf. (24), on c-command grounds; but D is argumental according to Higginbotham (1985), and phi-features are always interpretable on arguments. Vice versa, if we associate the N head with uninterpretable features, we are faced with a probe that looks upwards rather than downwards; the same applies if the adjective probes for the referential D.

(35) (a) la   ragazza   bionda   *Italian*
       "the blonde girl"

    (b) $[_{DP}$ l-a $[_{NP}$ [ragazz-a]   [biond-a]]]

This type of difficulty has given rise to multidirectional agreement (cf. Béjar and Rezac [2009], among others) in current minimalist research. Nevertheless, probing indifferently upwards and downwards weakens the original minimalist conception of agreement. As outlined by Brody (2006), minimalist agreement differs from other treatments of agreement (including generative ones) in introducing a probe-goal asymmetry. In other words, agreement becomes like movement. If transferred to the domain of movement, the option of probing upward or downward would mean that movement can go down as well as up.

Suppose then we treat agreement inflection as (bound, infl), in the sense of (33)–(34). The Adjective in (5a) has the structure in (36)—i.e., it consists of a lexical base *mað*—denoting the content of the predication (the set of "big" individuals), followed by agreement inflection -ε, identified with the N category because of its Nominal class properties (the traditional gender [cf. Harris 1991; Manzini and Savoia 2007]). The possibility that we suggest here, as an avenue for further research, is that the N inflection -ε in (36) provides a partial saturation of the argument slot of the nominal predicate, acting as a bound variable of the higher D saturating the same argument.

(36)

```
              DP
           /      \
         D          A
         ε        /   \
                 A      N
              mað_λx   -ε_x
```
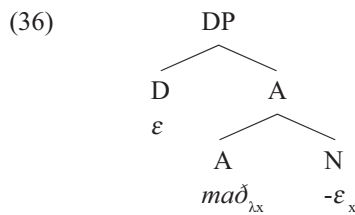
Suppose that instead of beginning our discussion with English *the boy*, we had introduced it with its Italian counterpart in (37), *il ragazzo*. The predicate *ragazz*- has an argument slot to be satisfied. The N class inflection *-o* provides a partial saturation of it (here gender descriptive content), while the determiner *il* contributes definiteness, shifting the type of the expression.

(37)

```
               DP
            /       \
          D           N
          il        /   \
                   N      N
              ragazz_λx   o_x
```
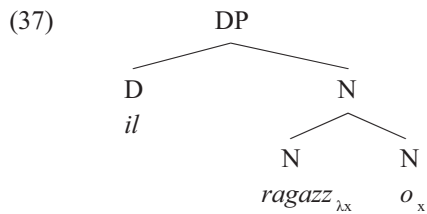
As we expect, the agreement inflection and the determiner can have an identical lexicalization in many Romance languages, for instance in Portuguese in (38).

(38) o menin-o;   os menin-os   *Portuguese*
   the boy-M.SG;   the boys-M.PL

If, as suggested here, all phi-feature bundles are interpretable at least within DPs/APs, Agree can no longer be Match (identity) of uninterpretable features (probe) with interpretable ones (goal) under minimal search. We can still take Agree to be minimal search and Match, but applying to interpretable feature sets. The application of standard minimalist Agree is forced by Full Interpretation, which requires the deletion of

uninterpretable feature prior to the LF interface (though this requires a certain amount of look-ahead). Under the present conception, Agree can equally be forced by Full Interpretation at the LF interface, since it builds the sequences of discontinuous referential material that corresponds to single referents/argument slots.

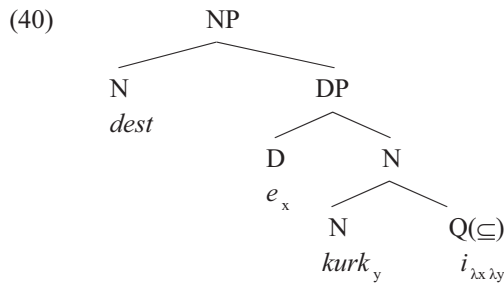## 5. Linkers and Genitives: The Relational Content of Oblique Case

We conclude by briefly considering pre-genitival linkers. We treat genitive case as having a relational content, of the type imputed to it traditionally, roughly "possessor." As already discussed, it is equally natural to construe ditransitive verbs as events causing a possession to hold ("I give the book to John" as "I cause the book to be in John's possession" [cf. Kayne 1984]). We take this to be the origin of the widespread so-called syncretism between genitive and dative—holding in Albanian and in those Iranian languages (Kurmanji) which still have a case declension. Following Belvin and den Dikken (1997), writing on the verb "have," we take the relevant characterization of possession to be an "inclusion" one. Following Manzini and Savoia (2011a, 2011b), we notate it as ($\subseteq$). Since relational content inside DPs is carried by Q elements (as in generalized quantifier theory) we further adopt the label $Q(\subseteq)$ for the oblique case ending. Nothing hinges on this precise category.

The schematic representation for the Albanian Noun-genitive DP in (4a) is then as in (39). The genitive noun is formed by the predicative base *matʃ-* "cat" merged with the $Q(\subseteq)$ ending *-sə*. In calling $Q(\subseteq)$ a possessor/inclusion relation, we imply that it connects two arguments. One is the possessor "(the) cat," which is provided by the noun (phrase) to which the oblique morphology attaches. The other argument is the head noun (phrase) "the tail," i.e., the possessum. Before merger of the genitive with the head noun can take place in Albanian, it is nevertheless necessary to provide a (partial) saturation of the external argument of $Q(\subseteq)$ within the genitive DP itself, namely by the linker D head, *i* in (39), ultimately bound by the head noun with which it agrees.

(39)
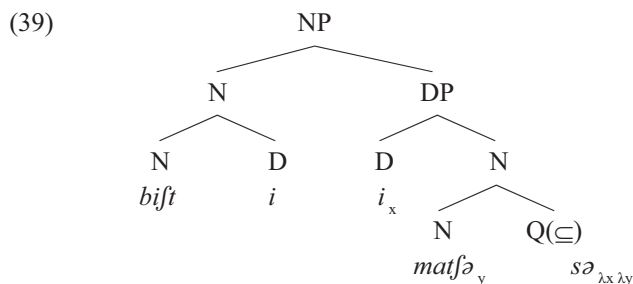
As in Albanian (39), the $Q(\subseteq)$ inflection in Kurmanji (40) (cf. example [8a]) introduces a possession/inclusion relation between the noun to which it attaches (the possessor)

and the head noun (the possessum); the D linker provides satisfaction of the possessum argument within the genitive DP.

(40)

NP
├── N
│   *dest*
└── DP
    ├── D
    │ e_x
    └── N
        ├── N
        │   *kurk*$_y$
        └── Q($\subseteq$)
            $i_{\lambda x \lambda y}$

Aromanian pregenitival introducers, as in (41), differ from pre-adjectival linkers, illustrated above in (20). They are worth mentioning here in that they agree not with the head noun but with the possessor, not only in case (cf. Toosarvandani and van Urk 2012 for Zazaki), but also in phi-features. In other words, in the structure in (42), *ali* provides D saturation for the internal argument of Q($\subseteq$), i.e. the possessor "(the) girls."

(41) (a) libr-a   o fitʃor-**u**/   ali fet-**i**   *Aromanian*
          the book   of the boy/   of the girl
          "the boy's/the girl's/his/her book"

     (b) libr-a   o fitʃor-**ju**/   o fet-**uɣu**
          many   of the boys/   of the girls
          "the boys'/the girls'/their book"

(42)

DP
├── D
│   *ali*$_y$
└── N -
    ├── N
    │   *fet*$_y$
    └── Q($\subseteq$)
        $i_{\lambda x \lambda y}$
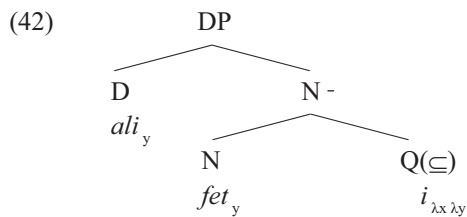
Philip (2012, 49–50), as part of her treatment of linkers as semantically void markers of head-dependent relations, explicitly states that:

> Where the sole purpose of a morpheme is to mark a syntactic relationship between two distinct extended projections—that is, a Head-Dependent relationship, we would expect . . . the primary agreement in Dependent-marking should cross-reference features of the head (cf. Nichols 1986, 58; also Zwart 2006, 56–57).

In other words, the Aromanian *o/ali* introducer does not fall under her theory of linkers. In the present approach, whether *ali* in (42) is or is not a linker is a moot point. The macrocategory "linker" has been decomposed into its elementary constituent parts (cf. [33]–[34]), allowing us to capture exactly not only the discontinuity, but also (unlike Philip) the continuity between Albanian/Kurmanji and Aromanian.

6. Conclusion

We argued that the linker of Albanian and Kurmanji is best construed as a D head, insuring the satisfaction of an A predicate (the adjective) within the AP; when the AP modifies a head N, the linker functions as an agreement/clitic double of the referential D (the determiner) that closes off the whole DP. This analysis was extended to possessor modification. The possessum-possessor relation is identified with the part-whole relation, notated $Q(\subseteq)$ and lexicalized in Albanian and Kurmanji by oblique case. The two arguments of the relation are the possessor (the "whole") and the possessum (the "part"). The linker concurs to the saturation of the external argument of $Q(\subseteq)$ within the genitive phrase.

Our approach applies to elements which have not necessarily been taken as linkers in the literature (the Aromanian dative introducer). Vice versa, French *de* or English *of*, which have been assimilated to linkers in the literature, can be considered instantiations of the same $Q(\subseteq)$ relation that is lexicalized in Albanian by case endings (cf. Fillmore 1968). Within the class of linkers as understood here, descriptive terminologies such as article (Albanian), ezafe (Iranian) or others capture differences concerning for instance enclitic vs. proclitic status or lexical identity with other agreement/clitic morphology in the language. These are lexical differences, as we might independently surmise on the basis of minimalist ideas about parameters of crosslinguistic variation.

Acknowledgements

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